

Abstract of the Disclosure

Disclosed herein is a process for the reductive alkylation of primary amines to form secondary amines, by high pressure reaction of the primary amine with an alkylating agent and hydrogen in the presence of a catalyst which comprises metallic palladium. A process of the present invention is characterized in having high conversion rates and high selectivities, both greater than 95% on a first pass through the reactor. According to a preferred embodiment, the secondary amine produced comprises at least one 2-alkyl group bonded to the nitrogen atom of the primary amine product.